KOLESOV, A.P. (Leningrad, K-9, Lesnoy prosp.,d.4, kv.78); NEMCHENKO,V.I.

Surgical treatment of mitral and tricuspid heart defects. Grud.
khir. 5 no.1:34-40 Ja -F'63.   (MIRA 16:7)

1. Iz khirurgicheskoy kliniki dlya usovershenstvovaniya vrachey
No.1 (nachal'nik - desystvitel'nyy chlen AMN SSSR prof. P.A.
Kupriyanov) Voyenno-meditsinskoy ordena Lenina akademii imeni
Kirova.
          (HEART—VALVES)   (HEART—SURGERY)

KOLESOV, A.P., prof. (Leningrad, Lesnoy pr., d.4, kv.78); KUTUSHEV, F. Kh.,
doktor med.nauk

Some difficulties in the diagnosis and treatment of patent
ductus arteriosus. Vest.khir. 90 no.2:36-40 F'63. (MIRA 16:7)

1. Iz 1-y khirurgicheskoy kliniki usovershenstvovaniya vrachey
(nachal'nik - prof. P.A.Kupriyanov) Voyenno-meditsinskoy or-
dena Lenina akademii imeni Kirova.
          (DUCTUS ARTERIOSUS)   (HEART—SURGERY)

KUPRIYANOV, P.A.; KOLESOV, A.P.; BURMISTROV, M.I.

Results of operations on the open heart. Trudy Inst. klin.
i eksper. kard. AN Gruz. SSR 8:603-608 '63.   (MIRA 17:7)

1. Kafedra dlya usovershenstvovaniya vrachey Voyenno-meditsinskoy
ordena Lenina akademii imeni Kirova, Leningrad.

KUPRIYANOV, P.A.; KOLESOV, A.P.; KUTUSHEV, F.Kh; IZBINSKIY, A.L.;
    RUKHIMOVICH, G.S.

Diagnosis and therapy of paravasal forms of lung cancer. Vop.
onk. 9 no.2:6-11'63.   (MIRA 16:9)

1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey
no.1 (nachal'nik – deystvitel'nyy chlen AMN SSSR prof. P.A.
Kupriyanov) Voyenno-meditsinskoy ordena Lenina Akademii ime-
ni Kirova.
                     (LUNGS—CANCER)

KUPRIYANOV, P.A. (Leningrad, D-123, ul. Ryleyeva, d.15.kv.6); KOLESOV,A.P.;
    KUTUSHEV, F. Kh.;BALLYUZEK, F.V.; SKORIK, V.I.; BURMISTROV, M.I.;
    LIBOV, A.S.; ZORIN,A.B.

    Practice in using artificial blood circulation in surgery on
    the open heart. Grud.khir. 5 no.1:8-18 Ja-F'63.   (MIRA 16:7)

    1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey no.1
    (nachal'nik - deystvitel'nyy chlen AMN SSSR prof. P.A. Kupriyanov)
    Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
        (HEART—SURGERY) (BLOOD—CIRCULATION, ARTIFICIAL)

KOLESOV, A.P. (Leningrad, K-9, Lesnoy pr., d. 4., kv.78); KUTUSHEV, F.Kh.

Surgical treatment of congenital heart defects combined with bronchiestasis. Grudn. khir. 5 no.3:8-12 My-Je'63   (MIRA 17:1)

1. Iz khirurgicheskoy kliniki usovershenstvovaniya vrachey No.1 Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova (nachal'nik - deystvitel'nyy chlen AMN SSSR prof. P.A. Kupriyanov [deceased]).

KOLESOV, A.P. (Leningrad, K-9, Lesnoy prospekt, d.4, kv.78)

Aneurysms of the cardiac interventricular septum. Grud. khir.
5 no.5:86-88 S-O '63.   (MIRA 17:8)

KUPRIYANOV, P.A.; KOLESOV, A.P.; BLESTKINA, T.G.

Some results and prospects of surgical treatment of mitral
defects of the heart. Trudy Inst. klin. i eksper. kard.
AN Gruz. SSR 8:609-612 '63.   (MIRA 17:7)

1. Kafedra dlya usovershenstvovaniya vrachey Voyenno-meditsinskoy
ordena Lenina akademii imeni Kirova, Leningrad.

KOLESOV, A.P. , prof.; UVAROV, B.S., kand. med. nauk; MASLOV, V.I.

Clinical evaluation of external heart massage. Khirurgiia
39 no.9:3 - 9 S*63   (MIRA 17:3)

1. Iz I Khirurgicheskoy kliniki dlya usovershenstvovaniya vrachey
(nachal'nik - deystvitel'nyy chlen AMN SSSR prof. P.A. Kupriyanov
[deceased]) i kafedry anesteziologii Voyenno-meditsinskoy ordena
Lenina akademii imeni Kirova.

KOLESOV, A.P., prof.; ZHELUDEV, S.I.; DAVIDENKO, V.A.

Mediastinal and mediastinal-pulmonary form of sarcoidosis in the surgical clinic. Khirurgiia 40 no.1:11-16 Ja '64.

(MIRA 17:11)

1. Khirurgicheskaya klinika dlya usovershenstvovaniya vrachey No.1 Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova.

KOLESOV, A.P.

Furazonal treatment of trichomoniasis in women. Sov. med. 28 no.1:
120-121   Ja '65.   (MIRA 18:5)

1. Akushersko-ginekolcgicheskaya klinika lechebnogo fakul'teta
(zav. - prof. A.M. Foy) Saratovskogo meditsinskogo instituta.

KOLESOV, A.P., prof.; DAVYDENKO, V.A.; BONK, G.M.

Diagnosis and surgical treatment of benign tumors of the esophagus
and cardia. Klin. khir. no.1:3-6 '65.

(MIRA 18:8)

1. Khirurgicheskaya klinika dlya usovershenstvovaniya vrachey
No.1 Voyenno-meditsinskoy ordena Lenina akademii imeni Kirova,
Leningrad.

KOLESOV, A.P.; KUTUSHEV, F.Kh.; TOLUZAKOV, V.L.; BURMISTROV, M.I.;
SHABLIY, I.P.

Operability and the immediate outcome of surgical treatment
of lung cancer. Vop.onk. 11 no.11:22-26 '65.
(MIRA 19:1)

1. Iz khirurgicheskoy kliniki dlya usovershenstvovaniya
vrachey No.1 (nachal'nik - prof.A.P.Kolesov) Voyenno-meditsinskoy
ordena Lenina akademii imeni S.M.Kirova.

KOLESOV, A. V.

"Cutting Angle Selection for Cutting Tools"
Translation of article from Russian, detailing tool angles
recommended by A. V. Kolesov (Stanki I Instrument, No. 9, 1953)

SO: Strojirenska Vyroba (Engineering Production), Czechoslovakia,
Vol. 2, No. 1, Jan. 1954, pp 1-44. (~~~, ~~~~~~~~, ~~~~~~,
~~~~~~~~~~~~~~~~~~~~.)

KOLESOV, B.I.

Bakteriolo icheskii kontrol' i fagoterapiya v gnoynoy khirurgii, 1948
/Bacteriological Control and Phage Therapy in Suppurative Surgery/ 1946.

S/169/62/000/009/068/120
D228/D307

AUTHORS: Ivashchenko, T. F., Kolesov, B. M., Lyubavin, Yu. P.
and Ovchinnikov, A. K.

TITLE: Question of separately determining uranium and tho-
rium in complex radioactive ores from gamma-logging
data

TEXT: On the grounds of the investigation of the integral spectra
or uranium and thorium ores with the same effective atomic number
the authors conclude that, in order to separate uranium and tho-
rium components in radioactive ores, it is necessary to record γ-
radiation with an energy above 1 Mev (the separation point). It is
shown that, if this method is to be used under working conditions,
the equipment's stability during the recording of radiation at the
separation point must not be less than 1 - 2% for at least 3 - 4

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Question of separately ...

S/169/62/000/009/068/120
D228/D307

hrs. In this case, depending on the change in the magnitude of
the uranium-thorium ratio in the range from 0.1 to 10, the uranium
content and the U/Th ratio can be determined with a precision of
not less than 5 - 20%. /¯Abstracter's note: Complete translation.7

Card 2/2

IVASHCHENKO, T.F.; KOLESOV, B.M.; LYUBAVIN, Yu.P.; OVCHINNIKOV, A.K.

Using gamma logging data to determine the limit of uranium and
thorium in complex radioactive ores. Vop.rud.geofiz. no.3:99-
101 '61.   (MIRA 15:8)
  (Radioactive prospecting) (Uranium ores) (Thorium)

EWT(1)/EWT(m) RDS AP...

NR: AP3001185

...lesov, B. M.; Lyubavin, Yu. P.; ...A. A.

amma radiation spectra from radioactive ... ...ter ...itions of natural
...e obtained with proportional counters

...umnaya energiya, v. ..., no. ..., ...

(A... Gamma radiation, xenon, gamma ... ...rtional counter

...e scintillation counters ... ...ve a poor resolution
...of energy below 100 keV. ... ...have used a pro-
...... The counter of a ... ...ength was filled
... ...mospheres. The anode ... ...re. The cathode
... ...teel cylinder. The ... ...minum. To simu-
....al condition, 80 km ... ...ontainers of
....mm in diameter. ... ...ere continuous with
...... about 28-30 keV. The ... ...ple scattering
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ACCESSION NR: AP3001185   0

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Card   2/2

ALIMOCHKIN, V.K.; ZOLOTNITSKIY, V.A.; IVASHCHENKO, T.F.; KOLESOV, B.M.;
    LYUBAVIN, Yu.P.; OVCHINNIKOV, A.K.

Separate determination of the clarke of potassium and the total
of heavy radioactive elements. Sbor. st. MGION no.1:93-99 '62.
(MIRA 16:3)
(Radioactive prospecting)

KOLESOV, D.A., inzh.; SEMENOV, L.N., inzh.; SHPAK, V.P., inzh.

Using collapsible paddings in ship launching from a longitudinal slipway. Sudostroenie 30 no.1:40-42 Ja '64.   (MIRA 17:3)

KOLESOV, D.S., inzh., otv. za vypusk; CHUMAKOV, N.M., red.; KIREYEV,
M.I., red.; AKULOV, Ye.F., red.; IVANOV, N.N., red.; KNYAZEV,
P.I., red.; CHICHILO, I.K., red.; VOROTNIKOVA, L.F., tekhn.
red.

[Safety regulations for operating and servicing the electric
power systems of industrial enterprises; obligatory for
industrial enterprises, economic councils, ministries, and
governmental agencies] Pravila tekhnicheskoi ekspluatatsii i
bezopasnosti obsluzhivaniia elektroustanovok promyshlennykh
predpriiatii; obiazatel'ny dlia promyshlennykh predpriiatii
sovnarkhozov, ministerstv i vedomst. Utverzhdeny 10 fevralia
1961 g. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va pu-
tei soobshcheniia, 1962. 349 p.   (MIRA 15:4)
1. Russia(1923- U.S.S.R.)Glavnoye energeticheskoye upravleniye.
                (Electric power distribution—Safety regulation)

VOLOBRINSKIY, Sergey Davidovich, kand. tekhn. nauk; KUDRYAVTSEV,
Mikhail Vasil'yevich, kand. tekhn. nauk, dots.; STEPANOV,
Vladimir Nikolayevich, prof.; KOLESOV, D.S., inzh.,
retsenzent; RYSHKOVSKIY, I.Ya., kand. tekhn. nauk, retsenzent;
NECHAYEV, N.A., kand. tekhn. nauk, retsenzent; ZASLAVSKIY, V.I.,
inzh., retsenzent; ZUBCHENKO, V.V. inzh., red.; MEDVEDEVA, M.A.,
tekhn. red.

[Electrical networks and power systems]Elektricheskie seti i
energosistemy. Moskva, Transzheldorizdat, 1962. 313 p.
            (Electric lines)   (MIRA 15:10)
        (Electric power distribution)

TYURIN, N.A.; KOLESOV, D.V.

Functional disorders of the nervous system in children with bronchial
asthma. Zhur. nevr. i psikh. 65 no.7:999-1003 '65.   (MIRA 18:7)

1. Kafedra detskikh bolezney (zav. - prof. Yu.F.Dombrovskaya) I
Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

KOLESOV, F.V.; VOLKOV, L.Ye.

Increasing the efficiency of centrifugal strainers. Bum.prom.31
no.3:20-22 Mr '56.
(MIRA 9:7)

1.Malinskaya bumazhnaya fabrika (for Kolesov).2.Nauchno-issledo-
vatel'skiy institut Bummash.(for Volkov).
(Papermaking machinery) (Centrifuges)

AUTHORS: Dneprovskiy, I. S., Kolesov, G. M.   SOV/48-22-8-6/2o

TITLE: Conversion Electrons of Some Neutron-Deficient Ho- and Er-
              Isotopes (Konversionnyye elektrony nekotorykh neytrono-
              defitsitnykh izotopov Ho i Er)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958,
              Vol. 22, Nr 8, pp. 935 - 940 (USSR)

ABSTRACT: The absence of Tu-lines in the conversion spectra of the
              isotopes of the erbium fraction permitted to regard the
              sample as being sufficiently pure. Tu was well studied
              by Gromov et al.(Ref 7) under similar conditions. 4 groups
              of lines with a half-life of $T_{1/2} \sim 30$, $3,5$, $2,5$ and 1 hours
              were found. The experimental evidence concerning the lines
              with $T_{1/2} \approx 30$ hours (Table 1) well agrees with the information
              furnished by the papers given by references 2 and 3. Hence they
              can be ascribed to the transitions following the decay of
              Ho^{160}. The investigation of this well studied isotope was
              not within the scope of this paper. In spite of a short
              irradiation of the tantalum it stood out sufficiently clear
Card 1/3   to permit an identification of the lines. The erbium-isotope

Conversion Electrons of Some Neutron-Deficient Ho- and   SOV/48-22-8-6/2o
Er-Isotopes

which decays with $T_{1/2}$ = 3,5 hours was found by Handley
(Khandley) and Olson (Olson)(Ref 5). Mitchel(Mitchel) and
Templeton(Templton)(Ref 8) determined the mass number (A)
of this isotope according to the time of passage through
the mass spectrometer as 161. It can be assumed that the
lines found by the authors which decay with such a half-life
can be ascribed to the transitions of the decay of Er^{161}
and of his daughter isotope Ho^{161}. The Ho^{161} with $T_{1/2}$ = 2,5
hours is known. Nevertheless this transition cannot be
assigned to this isotope. According to the experimental
conditions the observed half-life should be equal to 3,5
hours (Er^{161}). Hence the existence of an Er-isotope with
a half-life of 2,5 hours seems to be most probable. A
number of lines was also found which exhibited a half-life
of about 1 hour. The investigation of these lines with the
spectrometer at hand met with difficulties. The existence
of 3 lines was reliably determined (Fig 4, Table 8). The
authors expressed their gratitude to K.Ya.Gromov and A.V.
Kalyamin. There are 4 figures, 9 tables, and 9 references,

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Er-Isotopes

4 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im.V.I.Vernadskogo
Akademii nauk SSSR (Institute of Geochemistry and of Analytical
Chemistry imeni V.I.Vernadskiy, AS USSR)

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83675

S/048/60/024/009/008/015
BOC3/BO63

AUTHORS: Lavrukhina, A. K., Kolesov, G. M., Tan Syao-yen

26.1640

TITLE: Neutron-deficient Isotopes of Rare-earth Elements of the
             Cerium Group (Products of the Disintegration of Europium
             With 660-Mev Protons)

TEXT: The present paper gives the results of an investigation of the
production cross sections of rare-earth isotopes which are produced by
the disintegration of europium with 660-Mev protons. A target of 2 to 5 mg
of europium oxide (99.8% Eu_2O_3) was irradiated with the inner 660-Mev
proton beam of the synchrocyclotron of OIYaI (Joint Institute of Nuclear
Research) for 50 min. The fractions were identified from the position of
the peaks in the chromatogram (Fig. 1) and the active rare-earth isotopes
from the half-life and the radiant energy (Table 1). The yields of
isotopes produced by the disintegration of europium are shown in Fig. 2

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Neutron-deficient Isotopes of Rare-earth   S/048/60/024/C09/008/015
Elements of the Cerium Group (Products of the   BOC3/BO63
Disintegration of Europium With 660-Mev Protons)

as a function of Z. Fig. 3 shows the distribution curves of the isotope
yields of each element with respect to their mass numbers. The observed
character of distribution makes it possible to predict the yields of un-
known lighter isotopes. Table 1 gives the characteristics of radioactive
rare-earth isotopes produced by the disintegration of europium. It may be
seen that bombardment of europium (samarium) with 660-Mev protons is a
practical method of producing rare-earth isotopes of the cerium group.
Fig. 4 shows a curve that represents the dependence of the cumulative
yields of isobars on the mass numbers. The maximum yield is found in the
range of mass numbers between 137 and 145. In this range, the cumulative
yields are 60 - 120 mb for each A. The values found for the cumulative
yields may be used to estimate the possibility of producing preparations
of relatively long-lived isotopes. The production cross section sum of
rare-earth isotopes resulting from the disintegration of europium
amounts to 0.9 barn. This is ~50% of the geometric cross section of the
nucleus. The values obtained allow to determine the contribution of
different isotopes to the cross section. The amount of neutron-deficient
isotopes is 92% of the total yield of all rare-earth isotopes produced.

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S/020/60/134/006/029/031
B004/B054

AUTHORS: Lavrukhina, A. K., Kolesov, G. M., and Tan Syao-yen

TITLE: Reduction of Rare Earths of the Cerium Group on the
              Mercury Cathode

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 6,
              pp. 1406-1409

TEXT: The authors wanted to investigate the behavior of samarium, promethium, and cerium in electrolysis. Mercury was used as cathode, platinum wire as anode. The electrolysis was carried out at pH 5.8 - 6.0, at 0 to +2°C, a concentration ratio of Me^{3+} : CH_3COO^-: $C_6H_5O_7^{3-}$ = 1 : 1 : 2, and a voltage of 10 - 12 v. Radiochemically pure Sm^{153}, Pm^{147}, and Ce^{144} were used. After electrolysis, the quantity of Sm, Pm, and Ce, which had passed over into Hg, was determined by an MCT-17 (MST-17) counter. Sm was also determined gravimetrically. The experimental data are shown in Table 1 and Figs. 1, 2. The separation of samarium depends on the current density only in the range between 25 and 75 ma/cm^2. At higher current density,

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Reduction of Rare Earths of the Cerium Group   S/020/60/134/006/029/031
on the Mercury Cathode   B004/B054

the separation is little influenced by it. At 100 ma/cm^2, already 95% of Sm are separated within 30 min. At a constant concentration of the complex formers, the Sm separation does not depend on them within concentrations from $6 \cdot 10^{-3}$ to $6 \cdot 10^{-2}$. Pm^{147} and Ce^{144} were used in concentrations of about $1 \cdot 10^{-9}$ and $1 \cdot 10^{-12}$ mole. Pm passes over into the amalgam only at current densities higher than 75 ma/cm^2. But even at 100 ma/cm^2, the Pm separation only starts after 30 min and after the formation of a samarium-potassium amalgam with corresponding potential (-2.11 v). The Pm separation depends on the alkali metal used (K, Li). In the presence of K, the Pm only passes over into the Hg cathode if large amounts of Sm or Yb are present. In the presence of Li, the Pm separation is independent of the presence of these rare earths. An addition of potassium citrate bears no influence on the Sm separation, but prevents that of Pm, whereas lithium citrate exerts no influence on the Pm separation. The same results were obtained for cerium as for promethium. The authors arrived at the conclusion that the passing over of Sm, Pm, and Ce into the Hg cathode is due to electrolytic reduction. An intermediate stage is the bivalent state which is polarographically confirmed for La, Ce, Pr, and Nd (Refs. 8-10):

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Reduction of Rare Earths of the Cerium Group   S/020/60/134/006/029/031
on the Mercury Cathode   B004/B054

$Me^{3+} + e^- \longrightarrow Me^{2+}$. The authors found the optimum conditions for the
quantitative separation of Sm (up to 99.7% within an hour), and establish-
ed that Pm and Ce pass over into the Hg cathode up to 97%, even if the
complex formers are present in a 10^{11} excess. They also clarified the
possibility of a separation of these elements. They thank S. I. Sinyakova,
Yu. S. Sklyarenko, and O. L. Kabanova for their discussion. There are
2 figures, 1 table, and 10 references: 7 Soviet, 2 US, and 1 German.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I.
               Vernadskogo
               (Institute of Geochemistry and Analytical Chemistry imeni
               V. I. Vernadskiy)

PRESENTED: June 8, 1960, by A. P. Vinogradov, Academician

SUBMITTED: May 30, 1960

Card 3/3

S/186/61/003/006/006/010
E051/E135

AUTHORS: Lavrukhina, A.K., Kolesov, G.M., and T'ang Hsiao En

TITLE: The separation of irradiated samarium from
radioactive rare earth elements by electrolysis
with a mercury cathode

PERIODICAL: Radiokhimiya, v.3, no.6, 1961, 724-731

TEXT: Neutron-deficient elements of the cerium group of
rare earth elements can be produced by bombardment, with high-
energy particles, of a samarium oxide target weighing 100 mg or
more. After the irradiation the major part of the samarium must
be removed before using an ion-exchange chromatographic procedure
for the complete separation of the isotopes produced. Previous
experience had shown that electrolysis with a mercury cathode
would serve to remove most of the samarium, although other rare
earth elements, especially promethium, showed a tendency to be
co-deposited. Various factors were studied in an attempt to
improve the samarium removal and decrease the other rare earth
loss. Electrolysis was carried out in a cell made from a

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The separation of irradiated S/186/61/003/006/006/010
                                           E051/E135

separating funnal (37 mm diameter), ice-jacketed to keep the cell
at 0-2 °C. The cathode was 15 $m\ell$ of purified mercury and the
anode 25 cm of 0.8-1.0 mm diameter platinum wire, wound in a
spiral. Current to the cell was supplied at 10-12 volts from a
stabilised selenium rectifier circuit. Both mercury and
electrolyte were stirred at 500 r.p.m. The samarium target
material was shown by spectrographic analysis to contain
~0.5% Eu_2O_3, < 0.01% Gd_2O_3, and small amounts of Cu, Fe, $A\ell_2$
Si, Mg and Mn. Radioactive tracers Sm^{153}, Pm^{147} and Ce^{144} were
added as required. The radiochemical purity of the tracers was
checked by half-life measurements, β-ray absorption in aluminium
and by the absence of γ-radiation. The solution for electrolysis
was prepared by dissolving the target material in 10 $m\ell$ of 25%
acetic acid, excess of which was removed by evaporating the
solution until crystals of samarium acetate appeared. The residue
was dissolved in 6-8 $m\ell$ of 3.8% potassium citrate solution and
transferred to the cell using 2-4 $m\ell$ of the potassium citrate
solution as washings, giving a solution of pH 5.8-6.0. After
an electrolysis the cathode mercury was run out of the cell with
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The separation of irradiated ...

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E051/E135

the current switched on still, and washed with water to decompose
potassium amalgam. The remaining samarium amalgam was decomposed
with 6N HCl and samarium oxalate precipitated. From the
exhausted electrolyte SmF_3 was precipitated; this was dissolved
in 30% HNO_3 saturated with H_3BO_3 and $Sm(OH)_3$ or SM_2O_3
precipitated. The precipitates were ignited at 85 °C and weighed.
0.05-0.10 m aliquots of the electrolyte were assayed for
Sm^{153}, Pm^{147} and Ce^{144} activity. A loss of about 1% of the
activity occurred due to absorption on the glass walls of the cell,
0.1-0.3% loss occurred when the potassium amalgam was decomposed,
and other losses amounted to about 0.02%. The effects of elec-
trolysis time, cathodic current density, samarium concentration and
the substitution of lithium citrate for potassium citrate were
examined, keeping the citrate concentration constant.
At 100 mamp/cm² current density, after 30 min. electrolysis, 4.6%
of the samarium and 99.9% of the promethium were left in the
electrolyte. After 45 min the figures were 3.6% samarium and
59% promethium remaining in the electrolyte. Cerium was removed
from solution slowly but continuously, the deposition increasing

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The separation of irradiated ...   S/186/61/003/006/006/010
                                          E051/E135

with increasing cerium concentration. At current densities of
25 and 50 mamp/cm^2 no promethium was deposited in 1.5 hours, but
at 100 mamp/cm^2 83% was deposited. Samarium deposition increased
sharply from 25 to 75 mamp/cm^2 with a slight increase at higher
current densities. From $10^{-6}-10^{-4}$ M samarium the quantity
deposited remained ~93%; from $10^{-4}-6 \times 10^{-2}$ M the quantity
deposited rose to 97.6%; above 6×10^{-2} M the quantity decreased
due to precipitation of basic samarium acetate. By replacing
potassium citrate by lithium citrate, the deposition of samarium
was improved, leaving 0.3% in the electrolyte after one hour's
electrolysis at 100 mamp/cm^2, but at the same time 96.8% of the
promethium was deposited in the mercury cathode. The optimum
conditions for the separation of samarium on a mercury cathode in
the presence of potassium citrate were found to be:

6×10^{-2} to 6×10^{-3} M samarium concentration, 100 mamp/cm^2
current density, 60 minutes electrolysis time, and molar ratio

Sm^{3+}:Cit^{3-} = (1:2) - (1:20). Under these conditions the yield of

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The separation of irradiated ...   S/186/61/003/006/006/010
E051/E135

samarium reaches 97.6%. By replacing K with Li, a yield of
99.7% was obtained. Previous work had shown that promethium
and cerium only start to be deposited in a mercury cathode after
the formation of a mixed potassium-samarium amalgam, and the
extent of deposition depends on the potassium citrate concentra-
tion. By changing the cathode mercury during the course of an
electrolysis an improvement is gained in samarium deposition
without any deposition of promethium. With two changes of
mercury at 100 mamp/cm², 97.5% of the samarium can be removed
from the electrolyte without loss of promethium. With three
changes of mercury, 9% of the promethium was deposited. If
400 mg of potassium citrate was added during the course of an
electrolysis, although no improvement in samarium separation
occurred, no promethium was removed from the electrolyte at all.
Using these latter conditions a samarium oxide target which had
been bombarded with 660 MeV protons was treated. After the
major part of the samarium had been removed by electrolysis an
ion-exchange chromatographic procedure separated isotopes of Sm,
Pm, Nd, Pr, Ce and La.
Card 5/6

The separation of irradiated ...   S/186/61/003/006/006/010
E051/E135

There are 5 figures, 5 tables and 19 references: 13 Soviet-bloc,
1 Russian translation from non-Soviet-bloc publication, and
5 non-Soviet-bloc. The English language references read as
follows:

Ref. 2: H.N. McCoy, J.Am.Chem.Soc., v.63, 6, 1622 (1941).
Ref. 3: H.N. McCoy, J.Am.Chem.Soc., v.63, 12, 3432 (1941).
Ref. 4: I.K. Marsh, J.Chem.Soc., 531 (1943).
Ref. 11: E.I. Onstott, J.Am.Chem.Soc., v.78, 10, 2070 (1956).

SUBMITTED: May 26, 1960

Card 6/6

LAVRUKHINA, Avgusta Konstinovna; KOLESOV, Gennadiy Mikhaylovich;
    PODOSHVINA, V.A., red.; MAZEL', Ye.I., tekhn. red.

[Formation of chemical elements in cosmic bodies]Obrazovanie
khimicheskikh elementov v kosmicheskikh telakh. Moskva, Gos-
atomizizdat, 1962. 171 p.   (MIRA 15:12)
            (Chemical elements)   (Cosmogony)

S/020/63/148/005/010/029
B102/B186

AUTHORS: Lavrukhina, A. K., Kolesov, G. M.

TITLE: New neutron-deficient isotopes of the cerium group of rare-
earth elements

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 5, 1963, 1047 - 1048

TEXT: A 99.96% Pr_6O_{11} target was bombarded by 660-Mev protons in the syn-
chrotron of the Ob"yedinennyy institut yadernykh issledovaniy (Joint
Institute of Nuclear Research), the rare-earth elements were chromatogra-
phically separated and Ce was obtained by extraction, as a radiochemically
pure product. The measurements were made with an MTS-20 (MTS-20) end-
window counter, and a gamma scintillation spectrometer with a 100-channel
pulse-height analyzer. The Pr^{134} halflife was determined by separating
the 3.1-day Ce^{134} from the irradiated praseodymium. From the time depen-
dence of the Ce^{134} activity, the Pr^{134} halflife was found to be 36 min
(mean value 40±7 min). The same period was observed for the 720-kev gamma
Card 1/2

New neutron-deficient ...

S/020/63/148/005/010/029
B102/B186

component; it possibly arises on Pr^{134} decay. From the La decay curve the existence of the following isotopes could be determined: $La^{132, 133}$ (4.3hr), La^{131} (1.1 hrs) and an isotope with A=129 and a 20-min halflife - probably La^{129} with $\sim$24 min. The gamma spectrum of the Ce fraction has a 80±15-kev peak; that of the La fraction peaks at 115±20 kev and 175±15 kev and a 2.2-hr halflife, which could be attributed to Ba^{129}. In the Ce fraction also a 13-min activity and gamma peaks at 80±15, 315±20 and 745±20 kev ($\sim$15 min) were observed. From this the 129-isobar decay series is assumed to be $Ce^{129} \xrightarrow{\sim 13min} La^{129} \xrightarrow{\sim 20min} Ba^{129} \xrightarrow{2.2hr} ... \rightarrow Xe^{129}$. There are 2 figures.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernads-kogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences USSR)

PRESENTED: August 27, 1962, by A. P. Vinogradov, Academician

SUBMITTED: July 27, 1962

Card 2/2

KOLESOV, G.M.; MALYSHEVA, T.V.; NIKITYUK, L.N.

Gamma radiation and conversion electron spectrum from Nd^{139}.
Izv. AN SSSR. Ser. fiz. 27 no.10:1267-1269 O '63.
(MIRA 16:10)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo
AN SSSR.

LAVRUKHINA, A.K.; KOLESOV, G.M.

Study of the nuclear disintegration products of rare-earth
elements. Radiokhimiia 6 no. 1:62-66 '64.   (MIRA 17:6)

KOLESOV, G.M.; RUTKOVSKIY, V.M.

Carbonaceous chondrite of Zaysan. Priroda 53 no. 12:77-78 '64.

(MIRA 18:1)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo
AN SSSR, Moskva.

LAVRUKHINA, Avgusta Konstantinovna; KOLESOV, Gennadiy Mikhaylovich;
KALYUZHNAYA, T.P., red.

[Isotopes in the universe] Izotopy vo Vselennoi. Moskva,
Atomizdat, 1965. 239 p.   (MIRA 18:8)

L 40347-66   EWT(m)/EWF(t)/ETI   IJP(c)   JD

ACC NR: AP6019436   (A)   SOURCE CODE: UR/0007/66/000/003/0281/0290 63

AUTHOR: Lavrukhina, A. K.; Kolesov, G. M.; Kalicheva, I. S.; Akol'zina, L. D.   56
                                                                                  B

ORG: Institute of Geochemistry and Analytical Chemistry im. V. I. Vernadskiy, AN SSSR, Moscow (Institut geokhimii i analiticheskoy khimii AN SSSR)

TITLE: Activation determination of Ce, Eu, Sc, Ba, U, and P in dark and clear varieties of Kunashak and Pervomayskiy village chondrites

SOURCE: Geokhimiya, no. 3, 1966, 281-290

TOPIC TAGS: neutron activation analysis, meteorite, radioisotope, cerium, europium, scandium, barium, uranium, phosphorus
                                        /9

ABSTRACT: Neutron activation analysis was used to determine various elements in Kunashak and Pervomayskiy village chondrites. The samples were irradiated with a neutron flux of 1.2×10^{13} n/cm^2 sec. The content of Eu, Sc, Ba, and U in the clear varieties of chondrites of olivine-hypersthene composition generally correspond to the average content previously found in chondrites of this type. The concentration of Eu, Ce, and Sc in hypersthenic chondrites is higher than in enstatite chondrites. In nonmagnetic fractions of the investigated meteorites as compared to their unseparated samples, the content of Ce, Eu, and Sc is higher, owing to the lithophilous character of these elements. The concentration of Eu, Sc, Ba, and U in the dark and clear varieties of Kunashak meteorite is approximately the same. The P concentration in the dark varieties of

Card 1/2   UDC: 550.42+552.6

L 40347-66

ACC NR: AP6019436   1

chondrites is higher than in the clear ones. Data on cerium are of particular interest: the Ce content in clear varieties is about twice that in dark ones, which correlates with the lower concentration of metallic iron and higher concentration of ferrous iron, manganese, and chromium in clear varieties for the same total content of iron and troilite in both varieties. These data and also data on the content of inert gases indicate that the substance of the clear variety of the chondrites studied had undergone a more extensive oxidation than the substance of the dark variety, i. e., that the two varieties had a different thermal history. Authors thank T. F. Yakubova for assistance in the measurement of the radioisotopes, Yu. V. Yakovlev, N. N. Dogadkin, and A. Z. Miklishanskiy for placing the samples in the reactor, and V. Ya. Kharitonova and M. I. D'yakonova, on the staff of the Committee on Meteorites, AN SSSR (Komitet po meteoritam AN SSSR) for providing the meteorite samples. Orig. art. has: 6 figures and 4 tables.

SUB CODE: 03,07/ SUBM DATE: 31Jul65/ ORIG REF: 016/ OTH REF: 014

Card 2/2

KOLESOV, G.P.

Artesian feeding of rivers. Trudy GGI no.122:108-119 '65.

(MIRA 18:9)

KOLESOV, G.P.

Interaction of river waters with the banks during the spring flood in the Shelon' River basin. Trudy GGI no.123:78-80 '65.

(MIRA 18:10)

DUDOVIK, A. S., SITSINSKAYA, N. M., KOLESOV, G. V.

"High Speed Image Dissection Microphorographic Camera C PP-f"

report presented at the 6th Intl. Cong. of High-Speed Photography,
The Hague, 17-22 Sep '62

CB/002/005/009

A.J., Sitsinskaya, S.N.

Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, v. 8, no.

camera.

KOLESOV, I.;KALININ, S.

Milk receiving stations on collective farms. Moloch. prom. 18 no.4:
29 '57.   (MLRA 10:4)

1. Leningradskiy trest.
        (Milk)

KOLESOV, I.

Receive workers' letters and complaints attentively. Fin.SSSR
19 no.11:61-64 N '58.   (MIRA 12:7)
                    (Finance)

:C(b)-2/dWA(h)/EXT(1)   F -4, -j-4-11-- :E-4 i*o

AR5014417   JF ;*-*   :CC/004/H005/H005

. Fizika, Abs. 4Zh30

., I. A.

anission matrix of a traveling wave, ... :.... .... ased on

Tr. mskego in-ta radioelektro... . ... v. ., 1966,

.. 'insmission, parametric ... .

.e dal of a traveling wave parametr . . . . ' ied. The
-transmission line loaded by semiro ... . . . linear ra-
- apacitance changes from sec... . . . . ne travel-
.. transmission matrix of the ... ... amplifier
. .. the supposition that neithe. ... ...
..., that the amplitude of the di ... ... ar-
-- litude of the voltage on the ... ... feed

... change from section to section ... matrix is dir-
... traveling wave parametric amplifier ...
... ...aracteristics of the amplifier ...
... ..., transmission band and noise ... ... all in
... ...orted waves. As an example, a trav... ... ... amplifier
... with a section which is an element of a band ... produced by connect-
... ... in parallel with a diode. ... ...
... ...itive susceptance of the diode ... ... isolated from
... ...ations by ideal ferrite decoupling ... ... way that there
... ...d waves in the system and the term... ... ... amplifier are
... signal frequency and difference freq... ... ...s may be propagated
... When conditions for synchronism are ... ... a ...si-degenerated
... ...arametric amplifier, a formula for the amplification factor is
... ...red that a slight disturbance ... ... in several
... ...uency response of the traveling wa... ... ...ifier when the
... ...ns is rather large. Yu. Khotun...

ENCL. ...

NR: AR5009709

fer matrix are considered. In the first approximation
s taken of only single reflections of waves inside the am-

account is taken of only single reflections of waves inside the am-

from each of the sections. The second approximation takes

account the twofold change in the direction of wave propagation,

inhomogeneity of the amplifier structure. The approximate

ions obtained for the transfer matrix can be used, in particu-

determine the maximum stable gain, bandwidth, and noise figure

WFA with equidistant connection of the diodes. A. Zinkovskiy.

CODE: EC   ENCL: 00

RAPOPORT, R.I.; KOKOVIKHINA, K.I.; VARSHAVER, N.B.; YERMAKOVA, M.N.;
        KOLESOV, I.M.; ROZINA, N.Ye.

    Cultivation of a strain of diploid cells of the lungs of a human
    embryo. Vop. virus. 10 no.2:187-191 Mr-Ap '65.

                                                    (MIRA 18:10)
    1. Moskovskiy nauchno-issledovatel'skiy institut virusnykh preparatov.

KOLESOV, I. M. Cand Tech Sci -- (diss) "Study of the causes of loss of

precision in technological processes during mass-production of machines. (On the

basis of Podol'sk Mechanical Plant)." Mos, 1957. 17 pp 20 cm. (Mos Machine-Tool

and Instrument Inst im I. V. Stalin. Chair of "Technology of Machine Building.")

100 copies (KL, 24-57, 118)

KOLESOV, I.M.

Causes of the loss of precision of technological processes
in mass production. Stan.i instr. 28 no.4:7-11 Ap '57.
(MLRA 10:5)
(Machine-tool industry—Quality control)

AUTHOR: Kolesov, I.M., Candidate of Technical Sciences

TITLE: Effect of Non-Uniform Clamping Effort on the Precision of the
               Machined Parts (Vliyaniye neodnorodnosti usiliya zazhima na
               tochnost' obrabatyvayemykh detaley)

PERIODICAL: Mashinostroitel', 1958, Nr 9, pp 19-22 (USSR)

ABSTRACT: The chair of "Machinebuilding Technology" of the Moskovskiy
               stankoinstrumental'nyy institut (Moscow Institute of Machine
               tools) carried out investigations at the Podol'sk Mechanic
               Plant which revealed that different precision in machining
               parts of sewing machines, achieved by individual workers, was
               caused by non-uniform clamping of the parts. The conclusion
               is made that it is necessary to design a device with a constant
               pneumatic or hydraulic clamping effort.
               There are 2 tables, 2 diagrams, and 3 graphs.

               1. Industrial production--USSR   2. Metals--Maching
               3. Machine shop practice--USSR

Card 1/1

SOV-117-58-9-5/22

AUTHOR: Strakhov, V.S.

TITLE: A Device for Graduating Racks (Prisposobleniye dlya naneseniya deleniy na reyke)

PERIODICAL: Mashinostroitel', 1958, Nr 9, pp 22-23 (USSR)

ABSTRACT: Information is presented on the design and operation of a new device for cutting mm. graduation scales on pump racks. The cutter which is made of T15 K6 hard alloy, improved considerably the work process and the quality of graduation.
There are 2 diagrams.

1. Cutting tools—Design

Card 1/1

KORSAKOV, Vladimir Sergeyevich, doktor tekhn. nauk, prof.; KOLESOV, I.M.,
kand. tekhn. nauk, retsenzent; MITIN, V.I., inzh., red.; RZHAVIN-
SKIY, V.V., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Precision of machining] Tochnost' mekhanicheskoi obrabotki. Mo-
skva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 378 p.
(MIRA 14:7)

(Metal cutting)

KOLESOV, I.M.; BILETKIN, N.F.

Conditions for automatic tightening of nuts and screws. Stan.
i instr. 32 no.4:33-34 Ap '61.   (MIRA 14:3)
                              (Screwsdrivers)

KOLESOV, I.M.

Using technological dimensional diagrams in establishing
allowances for machining. Stan.i instr. 33 no.8:15-18 Ag '62.
                                                    (MIRA 15:8)

    (Metal cutting)   (Tolerance (Engineering))

KOLESOV, I.M.

        Methods for the automation of assembly work. Stan. i instr.
        34 no.11:19-23 N '63.   (MIRA 16:12)

KUCHERSKIY, L.V.; GETSEN, E.K.; SKRYABIN, V.A.; KONONENKO, N.I.;
    KOLESOV, I.M.; ANDREYEV, V.F.

Industrial safety in carrying out and cementing development
workings during the occurrence of oil and gas. Nauch. trudy
Perm NIUI no. 4:103-126 '62.   (MIRA 17:6)

KOLESOV, I.V., elektrotekhnik.

Use of the AMI-60 oil breakdown column for alternating-current
testing. Energetik 4 no.9:20-21 S '56.   (MLRA 9:10)
(Electric apparatus and appliances--Testing)

KOLESOV, I. V., SIKOLENKO, V. F., ORAVETS, Y., FROLOV, N. S., KAZAKOV, V. A., SKRYL, I. I., DVORETSKIY, A. S., and SEREBRYAKOV, R. A.

"Choice of Coordinates in Regard to the Entrance of Particles into an Emulsion Chamber (STuU-1),

Joint Institute of Nuclear Research, Dubna, USSR.

report submitted for the IAEA conf. on Nuclear Electronics, Belgrade, Yugoslavia 15-20 May 1961

The article describes a device for taking pictures of discharges in spark counters from two mutually perpendicular directions and reference marks ... frame of film in a moving-picture camera ... greatly ... for this purpose. The instrument is part of a system for determining ... which particles enter emulsion ... separate control unit; there is pr... ... There are five figures.

ACCESSION NR: AR4032164   S/0058/64/000/002/A039/A039

SOURCE: Ref. zh. Fiz., Abs. 2A337

AUTHORS: Dvoretskiy, A. S.; Kazakov, V. A.; Kolesov, I. V.; Oravets, Yu.; Sikolenko, V. F.; Skry*l', I. I.; Frolov, N. S.

TITLE: Installation for automatic registration of the coordinates of a particle entering a pellicle stack

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radioelektron. T. 4. M., Gosatomizdat, 1963, 15-27

TOPIC TAGS: high energy particle interaction, emulsion technique, electronic particle identification, particle trajectory recording, particle trajectory photography

TRANSLATION: An automatic installation is described, combining the emulsion technique for high-energy particle interactions and the

Card 1/2

ACCESSION NR: AR4032164

electronic method of identifying the particles. The installation can
register the coordinates at which the required particles enter the
pellicle stack with ±0.5 mm accuracy. It consists of a spark-counter
telescope, a pellicle stack, a recording chamber, and electronic
control blocks. The coordinates of the spark that develops along
the track of the particle passing through the counters are photo-
graphed through an optical unit that produces pictures of two
mutually-perpendicular projections of each spark on one frame of
motion picture film. High accuracy in the determination of the co-
ordinates is attained by precision construction of the optical and
mechanical units of the installation, by selecting the optimum oper-
ating conditions of the spark-counter telescope, and by using a
triggered-voltage pulse generator with low delay (not more than 0.25
μsec). The use of the insulation described yields a substantial gain
in the time required to interpret the experimental data. L. I.

DATE ACQ: 31Mar64   SUB CODE: PH, SD   ENCL: 00

Card 2/2

KOLESOV, L., inzhener-ekonomist

  Correct distribution of grain storages on waterways. Rech.
  transp. 21 no.11:6-8 N '62.   (MIRA 15:11)
      (Grain--Storage)

KOLESOV, L.I.

Increasing the role of water transportation in transporting grain
in the Ob'-Irtysh Basin. Trudy Transp.-energ. inst. Sib. otd.
AN SSSR no. 10:97-111 '60.   (MIRA 14:1)
          (Siberia--Inland water transportation)
               (Siberia--Grain--Transportation)

KOLESOV, L., inzh.-ekonomist

Rates for grain transportation in the Ob'-Irtysh Basin. Rech.
transp. 19 no. 2:9-10 F '60.   (MIRA 14:5)
        (Ob' Valley—Inland water transportation—Rates)
                (Irtysh Valley—Inland water transportation—Rates)
                        (Grain—Transportation)

AID P - 4909

Subject   : USSR/Electronics

Card 1/2   Pub. 90 - 3/10

Author   : Kolesov, L. N.

Title   : Power relations of vacuum tube oscillator of ultrahigh
                 frequencies.

Periodical   : Radiotekhnika, 6, 27-42, Je 1956

Abstract   : The author investigates basic power relations of a
                 triode oscillator at UHF. He takes into account the
                 influence of inertia of the electrons and the even
                 stronger influence (at UHF) of the oscillatory anode
                 system upon the performance of the oscillator. These
                 influences greatly reduce oscillator efficiency. The
                 author introduces parameters characterising electron
                 inertia and, for convenience of analysis, divides the
                 power triode into two diode sections. He uses in his
                 computations the integral equations introduced by G.A.
                 Grinberg and developed further by N. I. Ivanov. The

$KoLESOV, L.N.$

SUBJECT	USSR / PHYSICS CARD 1 / 3 PA - 1808
AUTHOR	KOLESOV, L.N.
TITLE	The Influence Exercised by Electron Inertia on the Form of the Modulation Characteristic on the Occasion of an Amplitude Modulation of the Transmitters.
PERIODICAL	Radiotechnika, 11, fasc.12, 28-36 (1956)
	Issued: 1 / 1957

It is often desirable to evaluate the influence exercised by electron inertia upon the shape of the modulation characteristic and to take measures for the "rectification" of the latter. As initial data the energetic dependences of the ultra-highfrequency tube generator, which are mentioned by the author in Radiotechnika 11, fasc.6, 1956, are used. The following assumptions were made:

1.) The modulation cascade of the transmitter (triode amplifier) is neutralized,
2.) In the state of the maximum output the dynamic characteristic does not come within range of the tube.
3.) The modulating voltage is modified according to the sinusoidal law with sound frequency.

At first the dependendes for the construction of modulation characteristics are derived. By modulation characteristics we understand: $I_{a1} = \varphi(U_{co})$ in the case of grid modulation, and $I_{a1} = \varphi(U_{ao})$ in the case of anode modulation. I_{a1} is the first higher harmonic of the current which flows through the useful load, U_{co} is the displacement (cathode ?) voltage, and U_{ao} the anode voltage.

General dependences for anode- and grid modulation are derived, with the help
of which the modulation characteristics are constructed in consideration of the
influence exercised by electron inertia. The dependence of the current I_{a1} on
the modulating voltage is shown by a formula, from which it may be seen that
the linearity of the modulating characteristic depends on the behavior of the
coefficient ξ of the utilization of anode voltage in the case of a modification
of the modulating voltage. The behavior of this coefficient

$$\xi = \frac{U_o}{U_{ao}}$$ during operation in the ultra-high frequency range is then investi-

gated. It is shown that the amount of the coefficient ξ depends on the inertia
coefficients β_a and β_o (of the distances grid-anode and grid-cathode of the tube).
The latter, in turn, depend on the voltages U_{ao} and U_{co}. Investigation of the
mode of operation of the amplifier in the case of the grid-modulation of the dis-
placement shows that:
1.) if the displacement voltage U_{co} is diminished, the amount of the inertia
coefficient β_o and with it also the influence of electron inertia grow, and
2.) that with the increase of β_c the inclination of the modulation characteristic
diminishes, which entails a reduction of efficiency in telephone operation. The
basic conditions which occur in the case of a displacement modulation within the

Radiotechnika, 11, fasc. 12, 28-36 (1956)   CARD 3 / 3   PA - 1808

ultrahigh frequency range are the following:
a) The influence exercised by electron inertia on the conditions for the flux
of the electrons through the tubes, b) Disturbance of the conditions for an
optimum operation of the amplifier in the case of a change of displacement, and
c) Reaction to the foregoing cascade must be stronger than in the case of long
waves. Lastly, the operation of the amplifier in the case of anode modulation
is investigated. In this connection the useful coefficient of the anode voltage
and of the electron electromotoric force of the modulating cascade depends
hardly at all on the modification of the anode voltage. Within the ultrahigh
frequency range these conditions are not adhered to, which fact exercises its
influence upon the linearity of the modulation characteristic. The reasons are
the following: 1.) The operation of the current distribution of the electron
flux between grid and anode is disturbed, 2.) The amount of the electron electro-
motoric force will be different at different points of the modulation
characteristic, and 3.) Demodulation of the modulating cascade.

INSTITUTION:

KOLESOV, L. N.

    "On the Computation of Superhigh-Frequency Tube Oscillators in
Systems of Power Amplification and Frequency Multiplication,"
pp 143-165, ill, 6 ref

Abst: A single method is proposed for computing a triode amplifier
and multiplier based on an analysis of a superhigh-frequency tube oscillator.
In addition to the effect of electron inertia, the computed formulas take
into consideration the effect of anode circuit parameters under superhigh-
frequency conditions.

SOURCE: Izvestiya Leningr. Elektrotekhn. In-ta im. V. I. Ul'yanova
(Lenina) (News of the Leningrad Electrical Engineering Institute imeni
V. I. Ul'yanov /Lenin/), No 30, Leningrad, 1956

Sum 1854

ACCESSION NR: AP4012354   S/0142/63/006/006/0602/0610

AUTHORS: Afanas'yev, K. L.; Kolesov, L. N.

TITLE: Theoretical investigation of the parameters of a flat inductance coil situated between two ferromagnetic nonconducting media

SOURCE: IVUZ. Radiotekhnika, v. 6, no. 6, 1963, 602-610

TOPIC TAGS: microelectronics, microsystem electronics, thin film circuit,   circuit element, film inductance,   inductance coil,   integrated circuit,   magnetic material, magnetic permeability, dielectric constant

ABSTRACT: For the purpose of investigating the influence of the properties of materials and of the frequency on the parameters of microelectronic film-type equipment using inductance coils (high-frequency transformers, chokes, or tank circuits), a model is considered in which a flat current carrying coil is situated between two nonconducting media with different permeabilities and permittivities. The

Card 1/2

ACCESSION NR: AP4012354

effect of the electromagnetic properties of the nonconducting
environment on the parameters of a flat-turn or spiral inductance
coil is studied at radio frequencies. The theoretical analysis leads
to formulas that permit engineering design of such coils. A formula
is derived for the inductance of a flat turn situated on the inter-
face between the two different media. It is shown that this induct-
ance exceeds that of a turn in vacuum by a factor
$\mu' = 2\mu_1\mu_2/(u_1 + u_2)$.

It is shown further that if ferromagnetic material is placed only on
one side of a flat coil, this factor is at its maximum value (~ 2)
regardless of the value of the permeability. Orig. art. has: 7
figures and 28 formulas.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog
Radio Institute)

SUBMITTED: 13Dec62   DATE ACQ: 14Feb64   ENCL: 00

SUB CODE: GE. SD   NO REF SOV: 004   OTHER: 001
Card 2/2

ACCESSION NR: AP4012356   S/0142/63/006/006/0616/0622

AUTHORS: Prozorovskiy, V. Ye.; Kolesov, L. N.; Sementsov, V. I.;
Afanas'yev, K. L.

TITLE: Analysis of some parameters of inductive and reactive
transistors

SOURCE: IVUZ. Radiotekhnika, v. 6, no. 6, 1963, 616-622

TOPIC TAGS: inductive transistor, reactive transistor, microelec-
tronics, solid state microelectronics, inductive transistor induc-
tance, inductive transistor Q, reactive transistor inductance, reac-
tive transistor Q

ABSTRACT: The inductance and Q factor of transistors with large
base-circuit resistance (inductive transistor) and of transistors
with a phase-shifting network connected in parallel to the base re-
sistance (reactive transistors) are determined analytically by using
the transistor equivalent circuit. It is shown that a decrease in
the thickness of the base of an inductive transistor to a value
≈ 20--30μ ($f_{\alpha} \approx 2$--4 Mc) increases the value of Q, but beyond that

Card 1/2

ACCESSION NR: AP4012356

the Q decreases. The maximum Q obtainable by using an inductive or reactive transistor as an inductance is $0.5(1 - \alpha)^{-1/2}$. The frequency at which the maximum Q is reached is $f_\alpha(1 - \alpha)^{1/2}$ and $(1 - \alpha)^{1/2}/2\pi r_e C$ for the inductive and reactive transistors, respectively, where $r_e C$ is the emitter time constant. The reactive transistor is superior to the inductive one in that the dependence of its Q on the inductance is less pronounced, so that higher Q can be obtained with large inductances at low frequencies. Orig. art. has: 6 figures and 29 formulas.

ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Radio Institute)

SUBMITTED: 18Dec62   DATE ACQ: 14Feb64   ENCL: 02

SUB CODE: GE, SD   NO REF SOV: 000   OTHER: 002

Card 2/2

S/0142/64/007/003/0316/0321

NR: AP4042848

Prozorovskiy, V. Ye.; Kolosov, L. N. (Docent); Afanas'yev,

ability of the Q-factor in an inductive circuit with p-n

VUZ. Radiotekhnika, v. 7, no. 3, 1964, 316-321

p n p transistor, reactive transistor, inductive transistor stability, collector voltage effect, collector voltage Q factor measuring bridge

The relationship between the Q-factor stability of inductive transistors and voltage under conditions of collision in a collector junction was investigated. The cause of the ity was analyzed. It was shown that with the introduction compensating negative resistance into the circuit, the Q-ability sharply decreases. Therefore, a large increase in Q rable. The inductance of the discussed circuit depends only on the collector voltage. If a considerable improvement of

NR: AP4042848

...r is necessary special measures for supply voltage regula-
...e taken. The Q-factor variation in an inductive transistor
... a function of collector voltage was investigated experi-
   A bridge with an oscillograph indicator was used. This
... the measurement of the inductive Q-factor from 0.1 to 10
... frequency range of 1 kc to 5 Mc, and with a 20 per cent
... 50 mv. Orig. art. has: 2 figures and 24 formulas.

...:   none

  04Feb63   ATD PRESS: 3103   ENCL: 00

    EC   NO REF SOV: 002   OTHER: 004

L /..,/L(m)/EWF(1)/T/EWP(t)/EWP(z)/EWF(b)/....   Fz-b/Fad/Peb

Shchegarov, V. M., Kolesov, L. N.

trodeposition of electric contacts on the surface of p-silicon

electric contact, semiconductor, surface electrodeposition, silicon junction, electrolyte

The electrodeposition of nickel, tin, copper, bismuth, antimony, lead, and the surface of p-type silicon single crystals was studied. In order to achieve the silicon surface was pretreated with hot alkali, and fluoborate or

indium on the surface of p-type silicon single crystals was studied. In order to achieve

tion, the silicon surface was pretreated with hot alkali, and fluoborate or
trolytes were used. Acid electrolytes to which fluoride ions were added also
tive; by removing the film of oxide SiO_2, the fluoride ions improve the ad-
siderably. Current pulses 10 to 100 times as strong as the prescribed value
be very helpful at the start of the deposition. The current - voltage char-
of the contacts obtained were measured. All the metals indicated the formation
contacts. Best results from the standpoint of reverse currents and breakdown
displayed by indium and bismuth contacts, which are recommended for solid-

NR: AP5015887

2

...is at small signals. For large signals, nickel and tin contacts are recom-
...dium and bismuth contacts can fulfill the function of p-n junctions in many
...ckel and lead contacts can act as ohmic contacts at crest voltages of less than
...A. Nikolayeva participated in the experimental work." Orig. art. has:
...2 formulas.

...ION- Taganrogskiy radiotekhnicheskiy institut (Taganrog Radio Engineering

...ED. 01Apr63   ENCL:00   SUB CODE:IC, EC

...V: 003   OTHER: 005

L 1974-66

ACCESSION NR: AP5020922   UR/0142/65/008/003/0311/0316
                                                             621.317.329

AUTHOR: Zaks, D. I.; Kolesov, L. N. (Docent); Afanas'yev, K. L.

TITLE: Modelling of integrated-circuit resistance and potential field in an
electrolytic bath

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 3, 1965, 311-316

TOPIC TAGS: integrated circuit, monolithic circuit, simulation test, model scaling

ABSTRACT: Modelling was used to determine the potential field and resistance
between two contacts in various configurations located on the surface or inside
a monolithic chip. The two- and three-dimensional models consisted of conducting
paper and an electrolytic bath, respectively. The latter was a 0.05% $CuSO_4$
solution with immersed plexiglass dividers which could be easily rearranged.
By using the bridge measurement method, the resistances between points could be
determined with an accuracy of 1%. Fig. 1 of Enclosure is a typical pattern
representing a configuration with disk contacts. The resistance between the
contacts as a function of the disk parameters is plotted in Fig. 2. No single

Card   1/3

L 1974-66

ACCESSION NR: AP5020922   O

factor was found to exert a predominant influence on resistance. Resistance
... ...ply only when the slot depth reached 0.96 of the chip width for the
3-D model, or 0.7 for the two-dimensional model. The potential fields measured
...........the models were of such a character as to possibly cause resistance
...........between separate circuits. For the separation of different circuits,
...........slots may be utilized, but they are not as effective as reverse-
...........junctions. Orig. art. has: 9 figures and 2 formulas.   [B]

ASSOCIATION: none

SUBMITTED: 03Jan63   ENCL: 01   SUB CODE: EC

NO REF SOV: 006   OTHER: 003   ATD PRESS: 4090

Card 2/3
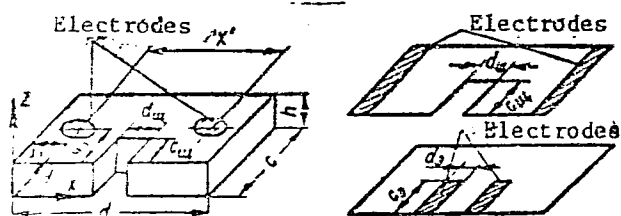
L 1974-66

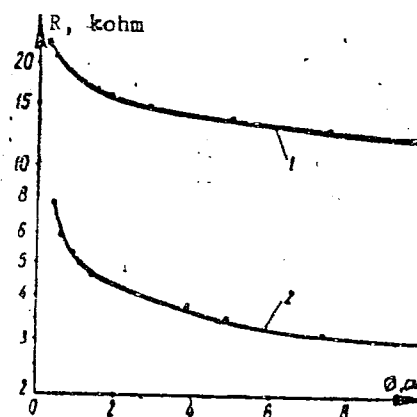ACCESSION NR: AP5020922

ENCLOSURE: 01

Fig. 1. Disk contacts

Fig. 2. Resistance between contacts as a function of disk parameters

Card 3/3 DP

L 1323-66   EWT(m)/EWP(i)/EWP(t)/EWP(b)   JD

ACCESSION NR: AP5020929

UR/0142/65/008/003/0362/0364
66.067,

AUTHOR: Katayeva, N. A.; Kharin, A. N.; Romanenko, L. V.; Kolesov, L, N. (Docent)

TITLE: Obtaining ferrite precipitates on metals by the electrophoretic method

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 3, 1965, 362-364

TOPIC TAGS: electrolytic deposition, ferrite

ABSTRACT: The use of the electrophoretic method for deposition of ferrite particles
on copper wire was investigated. The zinc-nickel ferrite used (Fe_2O_3, 65.9%; NiO,
9.6%; ZnO, 24.5%), had a density of 4.67 gm/cm^3 and magnetic permeability u_0 = 1000.
It was mixed with ethyl alcohol and ball milled for 150 hr, after which a 5—10%
ferrite suspension was obtained by decantation. To improve the electrolytic prop-
erties of the suspension, one drop of a 6% aqueous solution of cerium nitrate was
added to the suspension. Before deposition, the copper wire was bathed in a 10%
alkaline solution at 80—90C for 15 min, rinsed in distilled water, etched with
HNO₃ for 10 sec, and rinsed again. Deposition was conducted for 2—10 min under a
current of 2—20 mamp, depending on the surface area of the wire. Adhesion of the
ferrite particles was assured by dipping the ferrite-covered wire into a 1 N solu-

Card 1/2

L 1323-66

ACCESSION NR: AP5020929

tion of MBK-1 glue in toluene and later drying it at 100C for 12 hr. The electro-
phoretic process increased the inductance of the copper wires to 1 μh from fractions
[...] coils similarly processed showed an increase of inductance of 1.5

[PW]

ASSOCIATION: none

SUBMITTED: 08Jun64   ENCL: 00   SUB CODE: EC, EM

NO REF SOV: 003   OTHER: 000   ATD PRESS: 4103

Card 2/2

L 6442-66   EWT(l)/EWA(h)

ʌ'9C2b197

AUTHOR: Ponomarev, M. F.; Popov, V. P.; Kolesov, L. N.

SOURCE CODE: UR/0142/65/008/004/0451/0455

One

Effect of the resistance of a distributed RC-circuit base upon the characteristics of the selective filter

IVUZ. Radiotekhnika, v. 8, no. 4, 1965, 451-455

TOPIC TAGS: microelectronic circuit, microelectronic component

ABSTRACT: A microfilter comprising a semiconductor (or thin-film) RC-circuit and an additional resistor is theoretically considered. The effect of the base resistance upon the frequency characteristic slope and the transfer factor is analyzed for four schemes of connection of the additional resistor. Each scheme is regarded as two quadripoles connected in series. For a zero transfer factor, curves of the zero frequency, coefficient α_{01}, and characteristic vs. the coefficient $N = R_0/R$ (which characterizes the base resistance the selective presented. It is found that the base resistance impairs the selective-hence, it is recommended that this resistance be reduced

UDC: 621.375.13

L 6442-66

ACC NR: AP5026197

by metal plating the semiconductor base, by choosing suitable base material, or by suitable arrangement of contacts. Orig. art. has: 4 figures, 5 formulas, and 2 tables.

SUB CODE: EC/   SUBM DATE: 09Jul64/   ORIG REF: 000/   OTH REF: 005

KOCHEGAROV, V.M.; KOLESOV, L.N.

Electrochemical deposition of electric contacts on the surface of p-silicon. Zhur.prikl.khim. 38 no.6:1396-1398 Je '65.   (MIRA 18:10)

1. Taganrogskiy radiotekhnicheskiy institut.

ACC NR: AP6027235   SOURCE CODE: UR/0109/66/011/008/1436/1440

AUTHOR: Kolesov, L. N.; Mekhantsev, Ye. B.; Kil'metov, R. S.;
Shapovalov, V. I.; Zhuravskiy, V. L.

ORG: none

TITLE: Calculation of characteristics of distributed R-C-NR-structures having p-n-junction-type nonuniform capacitance

TOPIC TAGS: pn junction, circuit microminiaturization

ABSTRACT: A complete approximate matrix is set up of admittances of a non-uniform structure (see figure) consisting of two resistances separated by a reverse-biased p-n junction. In practice, such a structure has been used in component microminiaturization, and one of the resistances has been represented

UDC: 539.293.011.41

Card 1/2